

### REMARKS/ARGUMENTS

After entry of the above amendment: Claims 5, 8-11, 15-20, 41-46, and 56-62 have been canceled without prejudice; Claims 1, 3-4, 7, 12-14, 27-29 and 47-48 have been amended; and new Claims 63-64 have been added, as indicated in the listing of claims set forth above.

### REMARKS

In the Office Action of October 23, 2002: claims 1-62 (directed to a process for producing an image on a substrate) were pending; claims 5, 8-11, 15-20, 41-46 and 56-62 were withdrawn from consideration; and claims 1-4, 6, 7, 12-14, 21-40, and 47-55 were examined and rejected; and Claim 29 was objected to as being improperly dependent from Claim 28.

The Examiner has raised a number of rejections, which may be grouped as follows:

1. Under 35 U.S.C. §112, second paragraph, as indefinite (claims 1-4, 6, 7, 12-14, 21-40, and 47-55);
2. Under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,364,993 to Netsch et al. (claims 1, 2, 21-24, 27, 36, 37, 47, 49, and 50);
3. Under 35 U.S.C. §103(a) as obvious over Netsch et al., alone or in combination with other references (claims 6, 25, 26, 28-32, 38-40, 55, 53, and 54); and
4. Under 35 U.S.C. §103(a) as obvious over JP Published Application No. 10-157280 to Ota et al. in combination with other various references (claims 1-4, 6, 7, 12-14, 21-40, and 47-55).

### DISCUSSION OF THE AMENDMENTS

#### I. Amendments to the Title

The Title has been amended essentially as suggested by the Examiner (with minor grammatical changes) to be more descriptive of the claimed invention.

#### II. Amendments to the Specification

The specification has been amended at page 1, beginning at line 17, as suggested by the Examiner to delete an extraneous punctuation mark (*i.e.*, and extra comma). Additionally, this

paragraph has been amended as set forth above to include text from other areas of the specification, which more clearly refer to the elected invention and claimed subject matter.

Support for the inserted text in the amended paragraph may be found in the original specification, *e.g.*, at page 8, lines 12-18, and in Examples 1-6. In particular, the referenced text of the specification and examples describes production of a dry image that may include allowing a substrate to dry for a period of time after a recording liquid has been applied (in some cases, the image is dry almost instantly).

In one aspect, the opaque layer substrate is described in the specification as being reactive to inks (to become transparent as a result of the reaction) and to be fast drying. Essentially, a fast drying recorded substrate is described as drying so swiftly that it can be handled after recording (in some cases immediately) without any tackiness to the touch. Additionally, the Examples describe images that are produced after allowing a substrate to dry for a period of time (where an optional curing step is omitted).

No new matter has been added.

### **III. Amendments to the Claims**

After entry of the above amendment claims 1-4, 6, 7, 12-14, 21-40, 47-55, 63 and 64 are pending. Claims 1, 3, 4, 7, 12-14, 27-29, 47 and 48 have been amended. Claims 5, 8-11, 15-20, 41-46, and 56-62 have been canceled without prejudice. Claims 2, 6, 22-26, 30-40 and 49-55 remain unchanged. Claims 63 and 64 have been added.

Claim 28 and 29 have been amended such that claim 29 now properly limits claim 28, which obviates the Examiner's objection regarding improper dependency from claim 28.

Neither the cancellation of claims nor the amendment of pending claims should be construed as abandonment of any canceled subject matter. Accordingly, the cancellation of claims or amendments herein is without prejudice to further prosecution in a continuation, continuation-in-part, divisional or other related application. The new claims were added to clarify preferred embodiments of the elected invention, and are supported by the original claims.

The majority of the above amendments were prompted by the Examiner's comments and suggestions. Other amendments correct typographical errors, as required by the Examiner. Most of the amendments will be discussed below.

The remaining amendments do not change the substance of the claims, and are made solely for purposes of clarification. For example, the claims have been clarified to indicate that the process produces a dry image on a substrate after recording. As discussed above, support for this term may be found in the original specification, *e.g.*, at page 8, lines 12-18, and in Examples 1-6. From reviewing the referenced portions of the original specification, it will be clear that the term "dry" in the context of a substrate (where the substrate may optionally have an image recorded thereon) means that the coated substrate or recorded substrate (including its recorded image) is not wet or tacky to the touch, *i.e.*, it is non-sticky. Additionally, the term "fast drying" in the context of a recorded substrate means that the non-sticky substrate having an image recorded thereon may be handled after recording of the image without requiring an optional separate curing step. Moreover, such terms are well known in the art and have generally accepted meanings to the ordinary practitioner in this field.

No new matter has been added.

### **DISCUSSION OF THE REJECTIONS**

#### **I. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

Claims 1-4, 6, 7, 12-14, 21-40, and 47-55 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention.

Independent claims 1 and 47 (and consequently their dependent claims), were rejected as being unclear with respect to aspects of the opaque coating and meaning of the recording step (see the detailed reasons set forth in the office action). These claims have been amended as suggested by the Examiner to clarify that the opaque coating on the substrate is opaque prior to application of a recording liquid, and that the opaque coating on the substrate becomes transparent and/or translucent after a recording liquid is applied (as a result of contact with the recording liquid). As pointed out by the Examiner, upon considering the disclosure as a whole, such changes more clearly set forth the elected invention. The Examiner is also correct in assuming that the coating compositions provide an opaque coating on the substrate, which is clarified in the specification by page 6, lines 11-14, for example.

"The purpose of claims is not to explain the technology or how it works, but to state the legal boundaries of the patent grant. A claim is not "indefinite" simply because it is hard to understand when viewed without benefit of the specification." Cf. Autogiro Co. of America v. United States, 384 F.2d 391, 397, 155 USPQ 697, 701 (Ct. Cl. 1967) ("a claim cannot be interpreted without going beyond the claim itself").

As indicated above, the appearance of a coating composition prior to its application to the substrate is irrelevant with respect to the present claims, since the coating composition may be either opaque or non-opaque prior to its application, so long as the resulting coating on the substrate is opaque and can be rendered transparent or translucent by applying a recording liquid. With these grounds of rejection having been overcome by the above amendments and for the reasons set forth above, withdrawal of these grounds of rejection is in order, which is respectfully urged by Applicant.

Claim 2 was rejected as being indefinite because of the phrase "...wherein the image is a metallic-looking image." In setting forth the grounds of rejection, the Examiner rhetorically asked, "How metallic must an image appear to be considered "metallic-looking"?" Essentially, the Examiner is noting that the term "metallic-looking" is a broad term, and is questioning how the limits of such a term in the claim might be determined. Applicant respectfully traverses this rejection and believes it should be withdrawn for the reasons set forth below.

Initially, the Examiner is reminded that a broad claim is not to be deemed "indefinite" under 35 U.S.C. § 112, second paragraph, as a result of the mere fact that it is a broad claim, unless the meaning of a term itself is not clear. In fact, absent limiting language by an Applicant in their specification, the Examiner is compelled to give a term its broadest possible meaning that is not contrary to any recognized prior art term in the field of the invention. "The terms used in the claims bear a 'heavy presumption' that they mean what they say and have the ordinary meaning that would be attributed to those words by persons skilled in the relevant art." See CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366, 62 USPQ2d 1658, 1662 (Fed. Cir. 2002); K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1362-63, 52 USPQ2d 1001, 1004 (Fed. Cir. 1999); Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999); Specialty Composites v. Cabot Corp., 845 F.2d 981, 986, 6 USPQ2d 1601, 1604 (Fed. Cir. 1988). "Moreover, unless compelled otherwise, a court will give a claim term

the full range of its ordinary meaning as understood by persons skilled in the relevant art." See Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342, 60 USPQ2d 1851, 1854 (Fed. Cir. 2001); Johnson Worldwide Assocs., 175 F.3d at 989, 50 USPQ2d at 1610; Specialty Composites, 845 F.2d at 986, 6 USPQ2d at 1604. Since the specification has not limited the meaning of the term "metallic-looking", the Examiner should assume that Applicant clearly intends that this term should be given its broadest possible meaning, *i.e.*, wherein any degree of metallic appearance of the image should be regarded as being "metallic-looking."

"The requirement that the claims "particularly point out and distinctly claim" the invention is met when a person experienced in the field of the invention would understand the scope of the subject matter that is patented when the claim is read in conjunction with the rest of the specification. "If the claims when read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, §112 demands no more." Miles Laboratories, Inc. v. Shandon, 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993); see also Union Pacific Resources Co. v. Chesapeake Energy Corp., 236 F.3d 684, 692, 57 USPQ2d 1293, 1297 (Fed. Cir. 2001); North American Vaccine, Inc. v. American Cyanamid Co., F.3d 1571, 1579, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993); Hybritech, Inc. v. Monoclonal Antibodies, 802 F.2d 1367, 1385, 231 USPQ 81, 94-95 (Fed. Cir. 1986)." "It is well settled that a patent applicant may be his own lexicographer." W.L. Gore & Associates, Inc. v. Garlock, Inc. 220 USPQ 303, 316 (Fed. Cir. 1983). Applicants are allowed much latitude in terminology and their language will be accorded the meaning intended if it can be ascertained from the context of the patent application. See Strong-Scott v. Weller, 112 F.2d 389 (CA 8, 1940).

Moreover, the terms "metallic-looking", "metallic appearance" and "metallic surface" are well-established and common terms in the art (as further evidenced by a number of referenced issued U.S. Patents in the Background section) that do not require any further definition, since they are generally self-defining where any degree of metallic appearance is recognized as being "metallic-looking". In general, the prior art has clearly recognized that a metallic-looking image is created with a substrate that has a light-emitting or reflective layer (that may optionally be a metal foil layer) under a transparent coating, or is created by applying metallic ink (*i.e.*, an ink having an metallic appearance) to a substrate surface (see the issued U.S. Patents referred to in the Background section of the present application). In the present case, a transparent coating is

generated from an opaque coating when a recording liquid is applied, which in turn reveals a light-emitting or reflective layer through the then transparent layer. This causes the resulting image to have a metallic appearance (*i.e.*, to be "metallic-looking"), which optionally may be enhanced further by using ink that has a metallic appearance. Moreover, a review of the referenced issued U.S. Patents provides clear illustrations of typical substrates and/or images that have "metallic-looking" images or appearances.

As stated by the Board of Appeals, each U.S. patent "is a domestic patent and, therefore, is imbued with a legal presumption of correctness under 35 U.S.C. §282." *Ex parte D* 27 USPQ 2d 1067, 1069 (Bd. Pat. App. & Inter. 1993); "The claims as granted are accompanied by a presumption of validity based on compliance with, *inter alia*, §112 ¶2." *See Budde v. Harley-Davidson, Inc.*, 250 F.3d 1369, 1376, 58 USPQ2d 1801, 1806 (Fed. Cir. 2001). Thus, the claims (and terms in those claims) of the aforementioned patents must be presumed valid, and by extension, definite under 35 U.S.C. §112, second paragraph. Accordingly, Applicant asserts that the instant claims are also definite.

In view of the generally broad acceptance of such terms in the art and the examples of prior art acceptance of such terms that is provided in the Background section of the specification (which further clarify the meaning of such terms in the present context), and particularly in view of the detailed description in the present specification that relates to substrates which will yield metallic-looking images, the scope of the present claims is clear. Accordingly, the Examiner's rejection under 35 U.S.C. § 112, second paragraph, with respect to the "metallic-looking" term is improper and should be withdrawn.

Claims 7 and 27 were each rejected as failing to have antecedent basis in the claims from which they depend for terms within each of these claims. The parent claims for these two claims have been amended in such a manner as to provided antecedent basis for the offending terms. Accordingly, these grounds of rejection have been overcome and should be withdrawn. Early withdrawal of these grounds of rejection is respectfully urged.

## **II. VARIOUS PRIOR ART REJECTIONS OF THE CLAIMS**

### **REJECTION UNDER 35 U.S.C. §102(E) OVER NETSCH ET AL.:**

Claims 1, 2, 21-24, 27, 36, 37, 47, 49, and 50 stand rejected under 35 U.S.C. §102(e) as being unpatentable over US Patent No, 6,364,993 to Netsch, et al. (hereinafter "Netsch").

Netsch is cited by the Examiner as teaching a process for providing images on a substrate where applying water or an aqueous solvent changes an opaque layer to render it transparent when wet and thereby reveals the image behind the coating on the substrate. The Examiner will note that such images are "magic" disappearing transient images, since the substrate coating becomes opaque when dry and the image disappears. In essence, Netsch describes a wet image, not a dry image as recited in the instant claims. Further, the opaque layer of Netsch comprises a binder and aluminum silicate, but the opaque layer of Netsch is not cited as containing a polyacid and a polybase, and does not teach or suggest their use. Clearly, Netsch does not even relate to the claims as presently amended, since the present process relates to the production of a dry image on a substrate, or to drying the substrate after recording in order to produce the image.

Accordingly, since the cited reference does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §102(e).

### **REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH:**

Claims 6, 25, and 28-30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch. As noted above, the Netsch does not even relate to the present claims as presently amended, and there is no motivation or teaching in Netsch for producing an image on a dry substrate, or a method for drying the substrate to produce a recorded image. Accordingly, since the cited reference does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

### **REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH IN VIEW OF LEE:**

Claims 40 and 55 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch in view of US Patent No. 5,163,846 to Lee. The secondary reference to Lee is cited for claim elements related to applying the recording liquid with a writing instrument. For the

reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Lee does not remedy such defects in the teachings of the primary reference to Netsch, the teachings of Lee with respect to a water pen cannot be properly combined with Netsch, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH IN VIEW OF KAREL:**

Claims 38 and 53 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch in view of US Patent No. 5,733,634 to Karel. The secondary reference to Karel is cited for claim elements related to particular substrates, including a paper/foil laminate. For the reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Karel does not remedy such defects in the teachings of the primary reference to Netsch, the teachings of Karel with respect to particular substrates cannot be properly combined with Netsch, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH IN VIEW OF MILLS:**

Claims 39 and 54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch in view of US Patent No. 4,233,195 to Mills. The secondary reference to Mills is cited for claim elements related to particular substrates, including metallized paper substrates. For the reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Mills does not remedy such defects in the teachings of the primary reference to Netsch, the teachings of Mills with respect to particular substrates cannot be properly combined with Netsch, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does



not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH IN VIEW OF CEINTREY:**

Claims 31 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch in view of US Patent No. 4,252,601 to Ceintrey. The secondary reference to Ceintrey is cited for claim elements related to optical brighteners or pigments.

While the Examiner cites Ceintrey as describing opaque coatings similar to the coating described in the present claims, their composition and mode of functioning are totally different from the instantly claimed coating. In fact, it seems that the opaque substrate coating of Ceintrey is never rendered transparent. Instead styrene resin pigments in the opaque layer are dissolved, removed or pushed aside by use of a writing instrument (pen) to reveal a transparent layer. Therefore, Ceintrey never applies a recording liquid to render an opaque layer transparent. Rather, Ceintrey applies a opaque layer eraser pen to the opaque layer pigment that dissolves and/or removes the opaque pigments from a surface area of the substrate by writing and friction. Additionally, the Ceintrey substrate opaque layer is completely different from the opaque coating agent comprising a polyacid and polybase, as presently claimed. The Ceintrey substrate is obtained from a transparent backing sheet substrate having applied thereon an aqueous dispersion of an opaque coating of finely divided styrene resin pigments combined with a film-forming binder, which is dried to remove the aqueous solvent.

For the reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Ceintrey does not remedy such defects in the teachings of the primary reference to Netsch, the teachings of Ceintrey with respect to optical brighteners or pigments cannot be properly combined with Netsch, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER NETSCH IN VIEW OF OKAWA ET AL.:**

Claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Netsch in view of US Patent No. 4,810,562 to Okawa et al. (hereinafter "Okawa"). The secondary reference to Okawa is cited for claim elements related to the addition of ink to substrates to impart color prior to applying water to reveal an imbedded color or image. The Okawa document is cited in the prior art section of the Netsch document and is related to the same technology as Netsch in that it relates to a transient opaque/transparent layer substrate that can be wet with water to reveal features when wet that disappear when the substrate dries. Accordingly, Okawa does not relate to the production of a dry image as a result of rendering an opaque layer transparent. For the reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Okawa does not remedy such defects in the teachings of the primary reference to Netsch, the teachings of Okawa with respect to particular substrates having imbedded ink cannot be properly combined with Netsch, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH:**

Claims 1-4, 6, 7, 12-14, 21-25, 27-30, 33, 36, and 37 stand rejected under 35 U.S.C. §103(a) as being unpatentable over JP Published Application No. 10-157280 to Ota et al. (herein after OTA) in view of Netsch. OTA is recited as relating to a process for producing an image in which an opaque coating composition is applied to a substrate, and the coating composition is rendered transparent by contacting it with a solvent. However, OTA (as in Netsch) relates to disappearing transient images on a substrate where applying a solvent changes an opaque layer to temporarily render it transparent when wet and thereby reveals layer behind the coating on the substrate, where the revealed layer has the pattern of the applied solvent. The Examiner will note that OTA teaches that, upon drying, the substrate coating again becomes opaque and the image (printout) disappears, which is the goal of OTA. The opaque layer of OTA may optionally comprise some polymeric compounds, but the opaque layer of OTA is not described as containing both a polyacid and a polybase as a opaque coating agent, and does not teach or

suggest their combined use. Furthermore, OTA does not even relate to the claims as presently amended, since the present process relates to production of a dry image on a substrate, or to drying the substrate after recording to produce the image.

OTA relates to a reusable printer test sheet having an opaque outer layer, which uses a clear recording solvent to render areas of the opaque outer layer transiently transparent, wherein the clear recording solvent specifically does not include a colorant in order to make the test sheet reusable. Areas of the opaque layer become transparent from application of the recording solvent by a printer to reveal a non-transparent layer of the printer test sheet under the coating, and thus provide a transiently visible printed area. However, the portions of the outer layer of the printer test sheet that have been rendered temporarily transparent become opaque when the solvent evaporates and the sheet is again dry. The dry sheet has no residues from the recording solvent and is again a blank substrate that can be reused to test a printer (which is the purpose of the OTA substrate).

OTA seems to relate only to opaque pigments in a TRANSPARENT resin binder where pigments are chosen with properties such that they are rendered transparent during the time that the pigments are wet by an applied solvent. This is clear from the last sentence of translation paragraph 14, which requires a resin binder to be transparent in order to be acceptable in their invention. Also, translation paragraphs 14 and 15 describe a mixture of pigments with a resin binder that absorbs water, but describes the resin as being itself essentially water-insoluble (*i.e.*, "a resin that cannot melt into water easily"). Furthermore, some resins are described as requiring the addition of gelatin in order to function properly. Conversely, the presently claimed opaque coating is a mixture of a polymeric polyacid and a polymeric polybase as the opaque water-soluble coating agent that is rendered transparent by contact with a recording liquid (see page 8, lines 1-10, of the instant specification, for example). Accordingly, the presently claimed opaque coating layer functions in a totally different manner than does the opaque layer of OTA.

The Examiner has asserted that OTA describes polymeric polybases in translation paragraphs 14 and 15 that may be useful in one type of solvent acceptance layer, and asserts that the OTA reference separately describes at translation paragraph 30, a styrene/acrylic acid copolymer resin (which the Examiner seems to be asserting as a polymeric polyacid) that is useful in a further type of solvent acceptance layer. The Examiner also incorrectly asserts that

OTA teaches a solvent acceptance layer comprising both a polyacid and a polybase. There is no simply no description and no example in OTA of a solvent acceptance layer containing both a polyacid and a polybase (in particular water-soluble polyacids and polybases). Further, there is no basis to suggest that such a mixture would even be operable in the OTA substrate to provide a temporarily transparent layer absent such a teaching by OTA. Furthermore, there is no teaching that such a solvent acceptance layer would react rapidly with a colorant to provide a transparent layer and to thereby reveal a recorded image even when the substrate is dry (or when the substrate is dry to the touch (non-tacky)), since this would undermine and even destroy the very purpose of the OTA printer test sheet.

In view of the above deficiencies of OTA with respect to the independent claims of the present invention, the application of OTA with respect to further limitations in dependent claims is not proper and should be withdrawn.

The secondary reference to Netsch is cited for claim elements related to substrates that are reflective and/or glossy, including metal, prior to applying a solvent to temporarily reveal an imbedded color or image. Netsch does not relate to the production of a dry image as a result of rendering an opaque layer transparent, for the reasons set forth above in detail. For the reasons stated above, Netsch does not teach or even suggest the production of dry images on a substrate, or suggest the claimed opaque coating agents. Since Netsch does not remedy such defects in the teachings of the primary reference to OTA, the teachings of Netsch with respect to particular reflective, and/or glossy substrates, including metal, cannot be properly combined with OTA, and are therefore irrelevant with respect to the amended claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF HO ET AL.:**

Claim 35 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of US Patent No. 5,468,532 to Ho et al. (hereinafter "Ho"). The Examiner has applied the combination of OTA and Netsch in essentially the same manner as in the above combination (which has been refuted for the reasons set forth above and again asserted

here by reference) and further applies Ho with respect to using zirconium acetate as a cross-linking agent. Since the combination of OTA and Netsch fails for the reasons set forth above, and Ho is not asserted as remedying those defects in the combination, the further combination with Ho does not teach or suggest the elements of the present claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF BURKE:**

Claim 34 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of US Patent No. 4,154,618 to Burke. This rejection is essentially the same as the above combination of Ota with Netsch and Ho, except that Burke is asserting as teaching ammonium zirconyl carbonate as the crosslinking agent. Since the combination of OTA and Netsch fails for the reasons set forth above, and Burke is not asserted as remedying those defects in the combination, the further combination with Burke does not teach or suggest the elements of the present claims. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF CEINTREY:**

Claims 31 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Ceintrey. This rejection is essentially the same as the above combination of Ota with Netsch and further with other secondary references, except that Ceintrey is asserting as teaching the use of optical brighteners in the substrates. Since the combination of OTA and Netsch fails for the reasons set forth above, and Ceintrey is not asserted as remedying those defects in the combination, the further combination with Burke does not teach or suggest the elements of the present claims. See also the remarks above about the improper combination of Netsch and Ceintrey technologies, which are also applicable in the instant rejection. For essentially the same reasons set forth above Ceintrey fails to remedy the

deficiencies in the teachings of OTA and Netsch. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF KAREL:**

Claim 38 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Karel. These grounds of rejection are essentially as set forth in the combination of Netsch with Karel. Likewise, this combination of OTA with Karel must fail for essentially the same reasons as the combination of Netsch with Karel as set forth earlier above, and reasserted here by reference. For essentially the same reasons set forth above Karel fails to remedy the deficiencies in the teachings of OTA. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF MILLS:**

Claim 39 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Mills. These grounds of rejection are essentially as set forth in the combination of Netsch with Mills. Likewise, this combination of OTA with Mills must fail for essentially the same reasons as the combination of Netsch with Mills as set forth earlier above, and reasserted here by reference. For essentially the same reasons set forth above Mills fails to remedy the deficiencies in the teachings of OTA. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF LEE:**

Claim 40 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Lee. These grounds of rejection are essentially as set forth in the combination of Netsch with Lee, except that OTA is added for its teachings. The further combination of OTA with Netsch and Lee must fail for essentially the same reasons as the

combination of Netsch with Lee as set forth earlier above, and reasserted here by reference, since OTA does not cure the deficiencies in the teachings of Netsch. For essentially the same reasons set forth above the combination of Netsch and Lee fails to remedy the deficiencies in the teachings of OTA, and the use of a water pen is irrelevant to the present process for producing a dry image. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF OKAWA:**

Claim 26 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Okawa. The combination of Ota and Netsch and the combination of Netsch and Okawa have both been addressed fully above (and are asserted herein again by reference) and the combination of these two deficient combinations does not remedy the deficiencies in either combination. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH:**

Claims 47-52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch. These two references are applied to these claims in essentially the same way they were combined and applied to independent claim 1 and its dependent claims. Since these claims also relate to the production of a dry image, wherein the opaque coating comprise a polymeric polyacid and a polymeric polybase coating agent, the same logic traversing the above rejection of claim 1 applies equally to this rejection. Applicant reasserts by reference the above remarks with respect to this combination as applied to claim 1 and its progeny. Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a).

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF KAREL:**

Claim 53 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Karel. These grounds of rejection have already been addressed fully in the above traversal of this combination of references in the rejection of claim 38 and 53, and those remarks are reasserted here by reference. Withdrawal of these grounds of rejection is respectfully urged.

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF MILLS:**

Claim 54 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Mills. These grounds of rejection have already been addressed fully in the above traversal of this combination of references in the rejection of claim 39 and 54, and those remarks are reasserted here by reference. Withdrawal of these grounds of rejection is respectfully urged.

**REJECTION UNDER 35 U.S.C. §103(A), OVER OTA IN VIEW OF NETSCH AND IN FURTHER VIEW OF LEE:**

Claim 55 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Ota in view of Netsch and in further view of Lee. The combination of Ota and Netsch and the combination of Netsch and Lee have both been addressed fully above (and are asserted herein again by reference). Moreover, the combination of these two deficient combinations does not remedy the deficiencies in either combination, essentially for the same reasons set forth above traversing this combination as applied to reject claim 40 (which remarks are also asserted here by reference). Accordingly, since the combination of the cited references does not teach, or even suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a). Withdrawal of these grounds of rejection is respectfully urged.



**GENERAL REMARKS REGARDING ALL OF THE ABOVE PRIOR ART REJECTIONS:**

**The Prima Facie Obviousness Standard is not Met**

To establish a *prima facie* case of obviousness, the Examiner must present prior art references which, when combined or modified, teach or suggest all the claim limitations. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings in order to teach or suggest all the claim limitations. Also, there must be a reasonable likelihood of success, viewed in the light of the prior art. *Brown & Williamson Tobacco Corp. v. Phillip Morris Inc.* 229 F.3d 1120, 56 USPQ2d 1456, 1459 (2000) citing *In re Dow Chem.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). Furthermore, the teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Based upon the foregoing requirements, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness of any of the above claims with any of the above references, whether taken alone or in their various and copious combinations.

**a. There is no Suggestion or Motivation to Modify or Combine the Cited References**

Further, although the two primary references to Netsch and OTA do relate to rendering an opaque layer temporarily transparent to transiently produce a wet image that disappears when the substrate dries, Applicant respectfully submits that this is merely an invitation to perform further experimentation and does not amount to a suggestion of the presently claimed method for producing dry images with a substrate having an opaque layer that is rendered transparent when it is dry. In particular, nothing in either of Netsch or OTA relates to the reaction of a recording liquid with the opaque substrate to render it transparent when dry such that the recorded image and substrate can be handled almost immediately without tackiness or wetness to the touch.

Respectfully, absent hindsight, nothing in the cited references themselves would have motivated the skilled artisan to make and use Applicant's claimed invention, let alone have any reasonable expectations of success in so doing. Respectfully, any motivation provided by these references does not direct the skilled artisan to the particular invention claimed by the Applicant.

Instead, the references would at best relate to motivating one skilled in the art to find improved methods for producing wet or transient images.

None of the cited ancillary references cure such deficiencies in Netsch, OTA or the combination of Netsch and OTA with respect to motivation or suggestion to combine these references. Accordingly, this criteria of obviousness is not met.

**b. There is no Reasonable Expectation of Success**

There is no reasonable expectation of success in producing dry images from combining the technologies of Netsch and OTA. At best one would only expect to provide transient images on different substrates.

None of the cited ancillary references cure such deficiencies in Netsch, OTA or the combination of Netsch and OTA with respect to a reasonable expectation of being successful in producing the presently claimed invention in view of such a combination. Accordingly, this criteria of obviousness is not met.

**c. The Combined References do not Teach or Suggest all of the Claim Limitations**

Netsch, OTA or the combination of Netsch and OTA are silent with respect to the production of dry images (as a result of permanently rendering an opaque coating layer transparent where a recording liquid has been applied). This is contrasted with the teaching of the instant application which shows that at page 8, lines 12-18, and in Examples 1-6, for example, that the images are produced after drying and that the substrate is fast drying after the recording liquid has been applied.

Applicant respectfully submits that nothing in the cited references, either alone or in combination, discloses or suggests, the presently claimed method for producing dry images. Specifically, nothing in either of these references would have suggested that an opaque coating agent comprising a polymeric polyacid and a polymeric polyacid would provide an opaque coating that could be rendered transparent when a recording liquid has been applied, and the imaged produced or revealed by applying the recording liquid would be fast drying to provided a dry image. In fact, even assuming the truth of the Examiner's statements regarding the teachings of Netsch, OTA or the combination of Netsch and OTA, these teachings would at best result in

some improved methods for providing a transient image on a wet substrate. This falls far short of disclosing or suggesting the method of the presently claimed invention.

**d. Conclusion Regarding *Prima Facie* Obviousness**

In conclusion, Applicant asserts that a *prima facie* case of obviousness has not been established since the three basic criteria have not been met. Accordingly, since the cited references, whether viewed alone or in combination, do not suggest the invention as presently claimed, Applicant asserts that the invention is patentable under 35 U.S.C. §103(a) and respectfully request withdrawal of all of the above rejections.

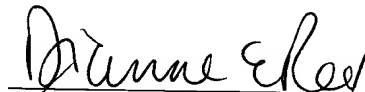
**SUMMARY**

The above arguments and amendments are submitted for the purpose of facilitating allowance of the Claims and a sincere effort has been made to place this application in condition for allowance. An early notice of allowance is earnestly requested.

If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned at (650) 330-0900.

Respectfully submitted,

By:



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